Resident Cohorts for Respiratory Outbreaks in Long-term Care

2/17/2022

Using infection prevention and control (IPC) measures, including forming cohorts, is critical to prevent entry and spread of COVID-19 and other viral respiratory illnesses in long-term care facilities (LTCF).

LTCF should follow:


Key infection prevention and control terms and concepts

Isolation

Physically separate someone who is sick with a contagious disease from others who are not sick.

Quarantine

Physically separate and restrict the movement of people who were exposed to a contagious disease to see if they become sick.

Transmission-based precautions

Infection prevention and control measures used when residents with known or suspected infection are separated from others. Transmission-based precautions are used in both isolation and quarantine. Refer to CDC: Transmission-Based Precautions (www.cdc.gov/infectioncontrol/basics/transmission-based-precautions.html).

Cohort formation

An infection prevention and control measure of grouping residents together who are infected with the same organism to confine their care to one area and prevent contact and spread to other residents. Cohorts are created based on clinical diagnosis, microbiologic confirmation when available, epidemiology, and mode of transmission of the infectious agent. Benefits of forming resident cohorts:
• Limits the risk of spreading respiratory illnesses by using dedicated staff to care only for COVID-19-positive residents. May be considered for other respiratory illnesses (for example, influenza).
• Allows for conservation of personal protective equipment (PPE) resources and extended use of PPE, such as respirators and eye protection, when supplies are limited.

**Symptomatic residents**

Residents with symptoms should be prioritized for immediate placement in isolation, ideally in a single room with a private bathroom. Refer to [CDC: Symptoms of COVID-19](https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html).

• Follow CDC testing recommendation for COVID-19. Consider testing for other respiratory viruses, such as influenza and respiratory syncytial virus (RSV).
• If limited single rooms are available, or if numerous residents are simultaneously identified to have known COVID-19 exposures or symptoms concerning for COVID-19, residents should remain in their current location pending return of test results. Consider the needs and risks of individual residents.
• Residents should be placed in the COVID-19 unit only if they have a positive COVID-19 test.
• Increase monitoring of residents with suspected or confirmed COVID-19 infection, including assessment of symptoms, vital signs, oxygen saturation via pulse oximetry, and respiratory exam, to identify and quickly manage serious infection.

**Exposed residents**

Residents who have close contact with someone with confirmed COVID-19 infection are considered exposed. Residents will need to have their COVID-19 vaccination status assessed to determine if they need to be placed in quarantine. Follow CDC guidance for quarantine and testing.

• Close contact means being within 6 feet of someone with COVID-19 infection for an accumulated 15 minutes or more over a 24-hour period.

**Up to date on vaccination**

Receiving all recommended COVID-19 vaccines, including booster dose(s) when eligible: [CDC: Stay Up to Date with Your Vaccines](https://www.cdc.gov/coronavirus/2019-ncov/vaccines/stay-up-to-date.html).

**Risk assessment**

A systematic process of evaluating potential risks that may be involved in a projected activity or undertaking.

• A risk assessment may be needed in certain situations (e.g., memory care) when deciding to move an exposed resident or a resident with suspected or confirmed COVID-19, influenza, or other infectious diseases due to safety concerns. It is up to the facility to determine the risk of moving a resident to another location, and if necessary, to apply appropriate IPC measures.
Key principles for a COVID-19 unit

Physical layout

- Determine a space (e.g., floor, wing, cluster of rooms, etc.) that can be physically separated from other rooms or units housing residents without COVID-19 infection. Any physical barrier will need to meet building and fire codes.

- Establish a traffic flow for people moving from clean to dirty areas to prevent cross contamination. Take into consideration the entrances and exits and the location of PPE and donning and doffing stations. Post signs prominently at the point of entry to the COVID-19 unit. Refer to MDH: Enhanced Respiratory Precautions (www.health.state.mn.us/diseases/coronavirus/hcp/ppepresign.pdf).


Personal protective equipment

- Set up and identify clear locations for separate PPE donning (clean) and doffing (dirty) stations. Designate separate clean and dirty (contaminated) areas with spacing, floor markings, use of donning/doffing posters, etc. Refer to CDC: Sequence for Putting on Personal Protective Equipment (PPE) (www.cdc.gov/hai/pdfs/ppe/PPE-Sequence.pdf).

  - **Donning station**: supplied with gowns, gloves, alcohol-based hand rub, respiratory protection, and eye protection.

  - **Doffing station**: large wastebaskets (or laundry bins) for gowns, alcohol-based hand rub, disinfecting wipes, and space to put eye protection and other PPE that needs cleaning/disinfection.


- Frequently clean and disinfect surfaces of donning/doffing stations and high touch surfaces throughout the COVID-19 unit.

Staffing

- When possible, dedicate staff to work exclusively in a COVID-19 unit and ensure they do not work in other areas of the facility.

- To the extent possible, restrict access of ancillary staff to the COVID-19 unit (e.g., dietary).

- If possible, designate a separate workspace, break room, and restroom for staff who are working on the COVID-19 unit.

  - Create a location with alcohol-based hand rub for safe donning and doffing of PPE when on break. Define a place and process for hand hygiene, disinfecting PPE (e.g., eye protection), storing PPE, and donning PPE after the break.

  - Ensure that the break area has enough space for social distancing and limit the number of staff present at the same time.
Frequently clean and disinfect surfaces in staff workspaces, break room, and restroom.

Admissions to COVID-19 unit

Infrastructure
- Ensure the facility has a structure in place that supports emergency response, infection prevention, health care worker (HCW) training, protocols, policies, and procedures that can be scaled up and down, depending on the response level needed.

Determining how to use cohorts with co-circulation of influenza and COVID-19

<table>
<thead>
<tr>
<th>Resident A¹</th>
<th>No respiratory symptoms² and not in isolation or quarantine</th>
<th>Respiratory symptoms, diagnosis pending</th>
<th>Isolation for +COVID-19</th>
<th>Isolation for +Influenza</th>
<th>Isolation for +COVID-19 and +Influenza</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resident B²</td>
<td>No respiratory symptoms² and not in isolation or quarantine</td>
<td>COHORT</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td>Respiratory symptoms, diagnosis pending</td>
<td>*</td>
<td>PRIVATE ROOM</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td>Isolation for +COVID-19</td>
<td>*</td>
<td>*</td>
<td>COHORT</td>
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</tr>
<tr>
<td></td>
<td>Isolation for +Influenza</td>
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</tbody>
</table>

Table adapted with permission from Washington Department of Health: Laboratory Testing and Cohorting Recommendations for Respiratory Outbreaks in Long-Term Care when SARS-CoV-2 and Influenza Viruses are Co-circulating (www.doh.wa.gov/Portals/1/Documents/1600/coronavirus/420-373-FluCOVIDLTCF.pdf).

¹ Follow CDC guidance on quarantine and isolation. Consider risks and benefits of individual residents for room placement.

² Residents who require aerosol-generating procedures (AGP) should be prioritized for a private room when the facility is located in counties with substantial or high COVID-19 transmission levels.

1 Residents who are asymptomatic but have tested positive for either influenza or COVID-19 should be placed in appropriate transmission-based precautions/isolation and not in a cohort with residents who have not tested positive.
Key principles for quarantine

- Follow CDC guidance for the admission and readmission of residents for quarantine and testing. **A negative COVID-19 test is not required prior to admission.** Refer to [CDC: Interim Infection Prevention and Control Recommendations to Prevent SARS-CoV-2 Spread in Nursing Homes](https://www.cdc.gov/coronavirus/2019-ncov/hcp/long-term-care.html).
- Residents who need to be quarantined should be prioritized for placement in a single-person room with a private bathroom.
- If the resident becomes ill or exhibits symptoms of COVID-19 or other respiratory illness at any point during quarantine, they should be placed in transmission-based precautions in a single-person room and tested.

When private rooms are unavailable for residents in quarantine

Under certain circumstances, such as during periods of limited hospital bed capacity, single-person rooms with private bathrooms may not be an option for some facilities. The decision to place residents in a shared room during their quarantine period increases the resident risk of exposure to COVID-19 and should be considered only on a limited, case-by-case basis. In these circumstances, providers should weigh risks and benefits during decision-making. Residents and family members should be consulted and provided information about the potential risk of exposure. Facilities will need to follow federal obligations. Facilities may consider more frequent testing of the resident during the quarantine period, as supplies allow.

Additional resources

**COVID-19 clinical guidance**


**Testing guidance**

- [MDH: Influenza Information for Health Professionals](https://www.health.state.mn.us/diseases/flu/hcp/index.html)

**PPE guidance**

- [CDC: Protecting Healthcare Personnel](https://www.cdc.gov/hai/prevent/ppe.html)
- [MDH: COVID-19 Personal Protective Equipment and Source Control Grids](https://www.health.state.mn.us/diseases/coronavirus/hcp/ppeguid.pdf)

**Vaccine guidance**

- [CDC: ACIP Vaccine Recommendations and Guidelines](https://www.cdc.gov/vaccines/hcp/acip-recs/)

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Disease specific guidance:

- MDH: Long-term Care: Influenza (www.health.state.mn.us/diseases/flu/ltc/index.html)
- MDH: Pneumococcal Information for Health Professionals (www.health.state.mn.us/diseases/pneumococcal/hcp.html)

Wear a mask. Wash your hands. Stay 6 feet from others. Stay home if you feel sick.